

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROBERT COSMO DI LUCCIO,  
MICHAEL A. DALEY, DAVID C. POTTS,  
GREGORY M. LEFKOWITZ, JACK N. LINDON,  
DAVID M. JACKSON, MATTHEW D. YOUNG,  
CHERYL A. MOCADLO,  
AND CANDACE D. KRAUTKRAMER

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Appeal 2006-2263  
Application 09/859,665  
Technology Center 3700

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Decided: May 23, 2007

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Before BRADLEY R. GARRIS, THOMAS A. WALTZ, and  
PETER F. KRATZ, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal the final rejection of claims 1-4, 6, 8-12, 14-20, 23-26, 32-34, 36-41, and 44 under 35 U.S.C. § 134. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM-IN-PART and REMAND.

## INTRODUCTION

Appellants claim a personal care absorbent article and a method for treating a viscoelastic proteinaceous fluid (Claims 1 and 32). The viscoelastic proteinaceous fluid may include menses (claim 15). The method includes adding a “treatment chemistry” which may include a water soluble gelling agent which cross-links protein to an absorbent article (Specification 4-5). The water soluble gelling agent, for example, reacts with the viscoelastic proteinaceous fluid to increase the viscosity (i.e., thicken) the fluid and prevent it from leaking out of the absorbent article (Specification 31).

Claims 1 and 15 are illustrative:

1. A method for treating a viscoelastic proteinaceous fluid, whereby management of said viscoelastic fluid by a personal care absorbent article is improved, comprising the steps of:

treating at least one portion of said personal care absorbent article with at least one treatment chemistry selected from the group consisting of water-soluble gelling agents which crosslink protein, thickening agents, plasma precipitators and combinations thereof; and

contacting said at least one portion of said personal care absorbent article with said viscoelastic fluid, thereby one of altering at least one property of said viscoelastic fluid and altering an interaction between said absorbent article and said viscoelastic fluid;

wherein said personal care absorbent article includes a fluid pervious polyolefin cover sheet, a fluid impervious backsheet, and an absorbent core between them.

15. A method for treating menses comprising the steps of:

forming a tampon including a nonwoven web material;

dispersing at least one treatment chemistry selected from the group consisting of water-soluble gelling agents which crosslink protein, thickening agents, plasma precipitators and combinations thereof on at least one of at least a portion of a surface of polyolefin or pulp fibers forming said nonwoven web material and within at least a portion of the interstices of said nonwoven web material;

contacting said at least one treatment chemistry with said menses.

The Examiner relies on the following prior art references as evidence of unpatentability:

Blaney	US 6,177,607 B1	Jan. 23, 2001 (Jun. 25, 1999)
Hamilton	US 6,562,192 B1	May 13, 2003 (Apr. 12, 2000)

The rejections as presented by the Examiner are as follows:

1. Claims 1-4, 6, 8-12, 14, 32-34, 36-41, and 44 are rejected under 35 U.S.C. § 102(e) as being unpatentable over Blaney.
2. Claims 15-20 and 23-26 are rejected under 35 U.S.C. § 102(e) as being unpatentable over Hamilton.

Regarding the § 102(e) rejection over Blaney, Appellants argue the same claim feature (i.e., the “water-soluble” nature of the gelling agents which crosslink protein) with respect to independent method claim 1 and independent article claim 32. Accordingly, we choose independent method claim 1 as the representative claim for determination of the propriety of the § 102(e) rejection over Blaney.

Regarding the § 102(e) rejection over Hamilton, Appellants argue independent method claim 15. Accordingly, we address Appellants' arguments regarding the rejection of claim 15 in our determination of the propriety of the § 102(e) rejection over Hamilton.

## OPINION

### 35 U.S.C. § 102(e) REJECTION OVER BLANEY

The Examiner cites to column 6, line 38 of Blaney as disclosing chitosan as a “gelling agent” (Answer 3). The Examiner contends that chitosan is naturally water-soluble (Answer 6), such that Blaney discloses the treatment chemistry used in her absorbent product is a “water-soluble gelling agent” as claimed by Appellants.

Appellants' only argued distinction is that Blaney fails to disclose a “water-soluble” gelling agent as claimed (Br. 4). Specifically, Appellants argue that Blaney discloses using chitosan as a “superabsorbent material” and that Blaney further defines “superabsorbent material” as being “water-insoluble” (Br. 4-5).

We cannot sustain the Examiner's § 102(e) rejection over Blaney.

Blaney defines “superabsorbent materials” as being “water-swellaable, water-insoluble organic and inorganic material” (Blaney, col. 6, ll. 11-15). Blaney indicates that “superabsorbent materials” may include, for example, “. . . natural and modified natural polymers, such as. . . chitosan” (Blaney, col. 6, ll. 35-40). Hence, in the context of the Blaney patent, chitosan may be modified and is “water-insoluble.”

Based on the foregoing disclosure, we agree with Appellants that Blaney fails to teach that chitosan, as used by Blaney in her absorbent

product, is a water-soluble gelling agent. Accordingly, the “water-soluble” feature of the gelling agents of claims 1 and 32 is not disclosed by Blaney.

Accordingly, we reverse the Examiner’s § 102(e) rejection over Blaney of independent claims 1 and 32 and dependent claims 2-4, 6, 8-12, 14, 33, 34, 36-41, and 44.

### 35 U.S.C. § 102(e) REJECTION OVER HAMILTON

Appellants argue that Hamilton fails to disclose the following two features of claim 15: (1) “dispersing at least one treatment chemistry selected from the group consisting of water-soluble gelling agents which crosslink protein, thickening agents, plasma precipitators, and combinations thereof on at least one of at least a portion of a surface of a polyolefin or pulp fibers forming said nonwoven web material and within at least a portion of the interstices of said nonwoven web material” and (2) “contacting said at least one treatment chemistry with said menses.”

We begin our analysis of claim 15 by construing the claim language “. . . at least one of at least . . . and . . .” as used in the claim phrase “dispersing . . . water-soluble gelling agents which crosslink protein . . . on at least one of at least a portion of a surface of polyolefin or pulp fibers forming said nonwoven web material and within at least a portion of the interstices of said nonwoven web material.” We look to Appellants’ Specification for guidance in construing the claim phrase. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, 75 USPQ2d 1321, 1329 (Fed. Cir. 2005). Appellants disclose that the thickening or gelling agents may be incorporated into an absorbent article in “a variety of ways” (Specification 33:8-10). Appellants’ “variety of ways” may include mixing the gelling agents at a prescribed

concentration into the materials such as non-woven materials during the manufacturing process, adding the gelling agents “on their own” to the absorbent article, or adding the gelling agents to the absorbent article “by means of airlaid, airformed, wetlaid, absorbent laminates, or nonwoven materials . . .” (Specification 33:10-15).

Because Appellants describe various alternatives (i.e., “a variety of ways”) to incorporate the water soluble gelling agent into the nonwoven web material, we construe the claim phrase “on at least one of at least” in claim 15 to mean that either the gelling agent is placed on “a portion of a surface of polyolefin or pulp fibers forming said nonwoven web material” or “within at least a portion of the interstices of said nonwoven web material” (Claim 15).

Our above claim construction is further supported by the language of claim 15 itself. The claim language, “at least one,” plainly indicates that only one of the application techniques (i.e., “on . . . a surface of a polyolefin or pulp fibers forming said nonwoven web” or “within at least a portion of the interstices of said nonwoven web material”) following such claim language need be met to satisfy the claim feature. Accordingly, prior art that discloses placing a water-soluble gelling agent on either “a portion of a surface” of a fiber, or “within . . . the interstices of said nonwoven web” would satisfy the particular claim feature.

Hamilton discloses placing chitosan (i.e., gelling agent) and nits inside a pouch of non-woven web material, such as a spunbond polypropylene web (Hamilton col. 25, ll. 25-48; col. 30, ll. 63-64 and col. 45, ll. 52-55). Chitosan, in its natural form, is water-soluble. The chitosan and nits are mixed in granular form (Hamilton, col. 29, ll. 51-55).

Claims are given their broadest reasonable construction consistent with the Specification during examination. *Phillips*, 415 F.3d at 1316, 75 USPQ2d at 1329. The Examiner determined that Hamilton's granular mixture including chitosan and nits contacts at least the inner surface of the spunbond polypropylene pouch such that the chitosan is "on . . . at least a portion of a surface of polyolefin [i.e., polypropylene] . . . fibers forming said nonwoven web material" such that Appellants' argued claim feature (1) is satisfied by Hamilton (Answer 7).

We determine the Examiner is reasonable in his construction of claim 15 as including Hamilton's disclosure wherein granular chitosan (i.e., gelling agent) is in contact with the inside of a non-woven polypropylene web material such that claim feature (1) is disclosed. The granular mixture of chitosan and nits would necessarily have to contact "at least a portion of a surface of polyolefin . . . fibers" (claim 15) constituting the nonwoven pouch encasing the chitosan and nit granular mixture. Thus, we agree with the Examiner that Hamilton discloses Appellants' claim feature (1).

Regarding the second argued distinction, Hamilton discloses testing the samples using menstruating subjects (Hamilton, col. 45, ll. 50-60). Accordingly, claim feature (2), "contacting said at least one treatment chemistry with said menses," is satisfied by Hamilton.

Because Hamilton discloses both of Appellants' argued claim features and for the reasons noted above, we affirm the Examiner's § 102(e) rejection of argued claim 15 and non-argued claims 16-20 and 23-26 over Hamilton.

## REMAND

At least claims 1 and 32 appear to be unpatentable under §§ 102(e) or 103(c) over Hamilton. Regarding claim 1, Hamilton discloses a method of changing the rheological (viscoelastic) properties of a fluid by using a personal care absorbent article having “a fluid pervious polyolefin cover sheet,” “a fluid impervious backsheet,” and “an absorbent core between them” (Hamilton, Figure 2, ref. no. 24, 26, 32 and 34; col. 25, ll. 25-45; col. 29, ll. 40-55). Hamilton discloses enclosing chitosan (i.e., gelling agent) and nits inside a non-woven polypropylene web that is part of an absorbent article (Hamilton col. 25, ll. 25-48; col. 29, ll. 30-36; col. 30, ll. 63-64 and col. 45, ll. 52-55). Hamilton further discloses contacting the chitosan and nit mixture with menses or other fluid such that change occurs in the rheological properties (i.e., viscosity) of the fluid being treated (Hamilton, col. 25, ll. 25-45). Accordingly, Hamilton appears to disclose all that is contained in claim 1.

Regarding claim 32, Hamilton discloses a personal care absorbent article having “a fluid pervious polyolefin cover sheet,” “a fluid impervious backsheet,” and “an absorbent core between them” (Hamilton, Figure 2, ref. no. 24, 26, 32 and 34; col. 25, ll. 25-45; col. 29, ll. 40-55). Hamilton further discloses enclosing chitosan (i.e., gelling agent) and nits inside a nonwoven polypropylene web that is part of the absorbent core of the absorbent article (Hamilton col. 25, ll. 25-48; col. 29, ll. 30-36; col. 30, ll. 63-64 and col. 45, ll. 52-55). Accordingly, Hamilton appears to disclose all that is contained in claim 32.

We note that Appellants disclose using chitosan as a water-soluble gelling agent (Specification 35-36). It appears that Hamilton’s chitosan



inherently is water-soluble too. However, in the alternative, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the water-soluble, natural form of chitosan to make the absorbent article more cheaply by avoiding the more expensive synthetic, water-swellaable, water-insoluble form of chitosan.

Therefore, in response to this remand, the Examiner must determine, and make of record the results of this determination, the propriety of rejecting at least claims 1 and 32 under 35 U.S.C. § 102(e)/103(c) as being unpatentable over Hamilton US 6,562,192 B1.

This Remand to the Examiner pursuant to 37 C.F.R. § 41.50(a)(1) (2006) is *not* made for further consideration of a rejection. Accordingly, 37 C.F.R. § 41.50(a)(2) (2006) does not apply.

#### DECISION

The Examiner's rejection of claims 1-4, 6, 8-12, 14, 32-34, 36-41, and 44 under § 102(e) over Blaney is REVERSED.

The Examiner's rejection of claims 15-20 and 23-26 under § 102(e) over Hamilton is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

**AFFIRMED-IN-PART and REMANDED**

Appeal 2006-2263  
Application 09/859,665

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